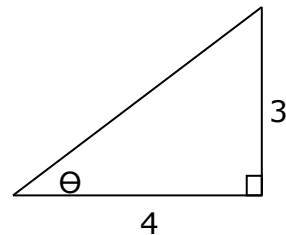


Use the figure to find the exact value of each trig function.



1. $\sin \theta$

2. $\cos \theta$

3. $\tan \theta$

4. $\csc \theta$

5. $\sec \theta$

6. $\cot \theta$

7. $\sin 2\theta$

8. $\cos 2\theta$

9. $\tan 2\theta$

10. $\csc 2\theta$

11. $\sec 2\theta$

12. $\cot 2\theta$

Find the exact values of $\sin 2x$, $\cos 2x$, and $\tan 2x$ using the double-angle identities.

13. $\sin x = \frac{3}{5}$, $0 < x < \frac{\pi}{2}$

14. $\cos x = -\frac{2}{7}$, $\frac{\pi}{2} < x < \pi$

15. $\tan x = \frac{1}{2}$, $\pi < x < \frac{3\pi}{2}$

16. $\cot x = -6$, $\frac{3\pi}{2} < x < 2\pi$